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HND COMPUTING IDM

Bussiness Process

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# **INTRODUCTION**

A business is a large recipient of data and information of all shapes and sizes, since ancient times, humanity has struggled to invent methods to process this vast amount of data and information to further your company's mission and realize your vision. Commercial processing is a technique that attempts to perform these actions.

This report will be a compilation of processes, complementary processes and examples.

# **WHAT IS A BUSINESS AND WHAT MAKES ONE?**

****A business is an entrepreneurial organization or entity engaged in commercial, industrial or professional activities. Businesses can be for-profit or non-profit organizations that fulfill a charitable mission or promote a social cause. Entrepreneurship is also the organized efforts and activities of people to produce and sell goods and services at a profit.

Figure 1: What is business

In general, a company starts with a business concept and a brand that represents it. Depending on the nature of the business, extensive market research may be required to determine whether it is feasible to turn the idea into a business and whether the business can deliver value to consumers.

The brand can be one of a company's most valuable assets; therefore, it should be taken into account when choosing it. Companies operating under fictitious names must be registered with the state. (HAYES, 2021)

# **WHAT IS BUSINESS INTELLIGENCE?**

Business intelligence is the process of transforming data into actionable insight that helps an organization make strategic and tactical choices. To offer users with detailed insight about the state of the business, BI tools access and analyze data sets and show analytical findings in reports, summaries, dashboards, graphs, charts, and maps. (Frankenfield, 2021)

# **TYPES OF DATA**

There are namely 9 types of data involved in the better understand of a business. Business processing techniques process these types of data, namely they are,

## Internal data

The data generated by a company's internal functions is known as internal data. Anything that every department in the firm does falls under the category of internal functions. To put it another way, all data kept in the company's systems is referred to as internal data.

## External data

Data that is generated outside of the company's control is referred to as external data. Weather forecasts, government datasets, police records, and tax records are just a few examples. The list is far from complete, and it will only continue to increase.

## Time-stamped data

This is a category in which the data obtained has an additional component: time. Time allows us to enter a new dimension of study, and its significance is highly underlined. For good reason, user experience is a very legitimate concern for developers and product designers these days.

## Structured data

Structured data is composed of elements that are addressable for effective analysis. It has been organized into a formatted repository that is typically a database. Basically any data that can be stored in database SQL in table with rows and columns. They have a relational key and can easily mapped into pre-designed fields.

## Unstructured data

Unstructured data is data that is not organized in a pre-defined manner or does not have a pre-defined data model, thus it is not a good fit for a mainstream relational database.

## Open data

The term "open data" refers to information that is freely available for use. It's also a term for open-source data, which anyone can use for whatever reason they want. Open data includes government databases like those found on the US Consular Affairs website.

## Big data

This is a term that is frequently used and has been a buzzword for several years. The area of Data Science makes extensive use of big data. Data science has exploded in popularity over the last decade, owing to the exponential increase in the amount of data we collect.

## Genomic data

The medical area is the major emphasis of this data type. Reading DNA structures has become possible as computers allow for more sophisticated and quicker computations. Just a decade ago, analyzing our DNA, which includes roughly 3 billion base pairs, was prohibitively expensive.

## Real-time data

Real-time data uses the most up-to-date information to forecast future occurrences. In the form of Google Maps and Uber trips, we use real-time data practically subconsciously these days.

(Lido, 2021)

# **BUSINESS PROCESS**

A business process is a collection of linked tasks that end in the delivery of a service or product to a customer. A business process is also defined as a set of activities and tasks that, once completed, will achieve an organizational goal.

The process should include clearly defined inputs and a single output. These inputs are made up of all the factors that contribute to the added value of a service or product. These factors can be divided into management processes, operational processes, and supporting business processes.

Management processes determine the operation of the operating system of a particular organization. Operational processes are the core business. Support processes, such as human resources and accounting, are set up to support core business processes.

The definition of the term business process and the development of this definition since its inception by Adam Smith in 1776 has given rise to areas of study such as Operations Development, Operations Management and the development of various Business Management Systems.

These systems, in turn, have created an enterprise processing software industry that seeks to automate process management by connecting different process actors through technology. A process requires a series of actions to achieve a certain objective.

The processes can be simple or complex depending on the number of steps, the number of systems involved, etc. They can be short term or long term. Longer processes tend to have multiple dependencies and a higher documentation requirement. (Mekhala Roy, 2021)

# **COMMON BUSINESS PROCESS**

A small business is quite simple, until it starts to grow. Growth introduces new complexities that require more employees and more focus. The five core processes of a small business quickly grow into the ten core business processes.

That is, each of the major small business processes has been split into two and now sales and marketing are separate processes, just like accounting, technology, quality, and product delivery.

Below are some examples of common entities that deal with data and information processing within a company:

* Marketing strategy and customer relations
* Employee development and satisfaction performed by human resources
* Quality management, process improvement and change performed by Quality Control
* Financial analysis, reports and capital management performed by accounts
* Leadership responsibility with regard to senior management
* Customer acquisition through sales
* Product development
* Delivery of products / services
* Accounting management
* Technology Management (Bizmanualz, 2021)

# **STEPS OF THE BUSINESS PROCESS LIFECYCLE**

**Step -1: (Define Your Goals) -** What is the purpose of the process? Why was it created? How will you know if it is successful?

**Step – 2: (Plan and Map Your Process) -** What are the strategies needed to achieve the goals? This is the broad roadmap for the process.

**Step – 3: (Set Actions and Assign Stakeholders) -** Identify the individual tasks your teams and machines need to do in order to execute the plan.

**Step – 4: (Test the Process) -** Run the process on a small scale to see how it performs. Notice any gaps and make adjustments.

**Step – 5: (Implement the Process) -** Start running the process in a live environment. Properly communicate and train all stakeholders.

**Step – 6: (Monitor the Results) -** Review the process and analyze its patterns. Document the process history.

**Step – 7: (Repeat) -** If the process is able to achieve the goals set for it, replicate it for the future processes. (BPM, 2021)

# **SUPPORTIVE PROCESS**

These processes help ensuring that business processing is done to its optimum level, and nothing goes wrong.

* **Business Process Automation –** This is a technology-driven strategy to automate a business process in order to accomplish it with minimum cost and in a shorter time. It is extremely useful for both simple & complex business processes.
* **BPM –** This is a systematic approach to make an organization’s processes more efficient and dynamic in order to meet the changing needs of business. Continuous improvement is one of the core underlying philosophies of BPM and it aims to put it at the center of all BPM initiatives. BPM is an ongoing approach to continuously make execution of business processes better. Several cloud and on premise software solutions are available to implement BPM.
* **Business Process Modeling –** This is a diagrammatic/structural representation of flow of business activities in an organization or function within an organization. Its primary use is to document and baseline the current flow of activities in order to identify improvements and enhancements for speedy accomplishment of tasks.
* Usually, they follow a standard such as Business Process Modeling Notation (BPMN) which is a globally accepted standard which most process professionals easily identify with.
* **Business Process Improvement –** This is a strategic planning initiative that aims at reshaping business processes based on operations, complexity levels, employee skills etc. in order to make the entire process more meaningful, efficient and contribute to overall business growth.
* It is a rather drastic way to rediscover more efficient ways to run a business process rather than taking small incremental steps.
* It usually starts with process mapping and its core aim is to align IT resources with organizational business goals. There are a lot of process improvement tools in the market, that’d help you out with this.
* **Business Process Reengineering –** This is a complete redesign of business processes after thorough analysis in order to bring drastic impact. It involves identifying the core of inefficiency, culling out tasks that don’t add any value and even implementing a top-to-bottom change in the way a process is designed in order to bring about an overall transformation.
* **Business process optimization –** Is a process that takes an existing process and uses analytics and business process mining tools to weed out bottlenecks and other significant inefficiencies in a process.
* **Business process mapping -** is a procedure to document, clarify, and break down process sequences into logical steps. The mapping is either done in written format or visualized using flow charts. Choose a process mapping software that empowers business users to map all the processes based on logical steps with an intuitive visual interface.
* **Business process analysis -** is the process of identifying business requirements and deciding on solutions that best solve business problems. This can consist of process improvement, policy development, organizational change, or strategic planning.
* **Business process integration -** is the ability to define a process model that defines the sequence, hierarchy, events, and execution logic and movement of information between systems residing in the same enterprise.
* **Business process Simulation -** is a tool for the analysis of business processes to measure performance, test process design, identify bottlenecks, test changes, and find how a process operates in different environmental conditions with different datasets.
* **Business process transformation -** is a term that means radically changing a series of actions needed to meet a specific business goal. This is aimed at ensuring that a company’s employees, goals, processes, and technologies are all in line with each other.
* **Business process Monitoring -** is the active monitoring of business processes and activity to help management gain insight into important transactions and processes within an enterprise. This helps management to gain visibility on how their processes are functioning, and if they’re aligned with the company’s business goals.

# **TOOLS OF BUSINESS PROCESSING**

The purpose of business process tools is to improve performance by increasing efficiency and productivity. The tools used are essentially visual aids that can quickly and clearly convey the big picture of a highly complex or clearly informative business process, even for those less familiar with the field. These are some of the most common and effective to achieve it:

## Flowcharts

A flowchart is a diagram that represents a process and can be created with readily available software. Flowcharts contain a start and end point. Typically, symbols such as circles, squares, and diamonds represent events or activities, while arrows indicate the sequential flow and associations between steps.

## Functional flow block diagram

A functional flow block diagram (FFBD) is used to describe the requirements in functional terms. Rather than being solution oriented like a flow chart, the FFBD is functionally oriented and illustrates the functional architecture of a system.

## Control flow diagram

A control flow diagram is used to describe the normal flow of a process, with additional limits and restrictions. Control flow diagrams illustrate how certain conditions, such as alternative operations, additional data or equipment, or alternative inputs, affect a process flow.

## Gantt chart

A Gantt chart is another way to convey information visually. Typically a bar chart, Gantt charts focus on the activities and tasks involved in a process, presented sequentially and against a timeline. They also show the dependency relationships between activities. With a Gantt chart, a professional can see at a glance whether a project is on track, early or late.

## PERT chart

A program review and evaluation technique diagram is used to determine the minimum amount of time required to complete a project. The concept behind this technique is that certain activities cannot be started until others are completed. The PERT chart helps avoid unrealistic time frames by estimating the shortest, most likely, and longest time each step in a process will take.

## IDEF diagram

IDEF is an acronym for Definition of Integration, a technique widely used in business process modeling. IDEF refers to 16 methods, designed to capture some type of information through modeling processes. IDEF methods are used to create diagrams that define system control and data flow and can graphically represent a wide variety of processes at any desired level of detail.

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